VI.

ESSAYS

ON

FEMALE EDUCATION.

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PREFACE.

Believing that no people can be happy, without good government; that good government cannot exist without morality, nor morality without religion; and, that the purity of these, is inseparably connected with knowledge, the prevalence of education appears to be the only security, for the prosperity and happiness of any people. From ignorance, arise bigotry and superstition in religion, want of refinement in moral feeling, and in government, either the license of incensed mobs, or slavish submission to unjust legislation. Once our hopes were sanguine, that our free institutions would be permanent. But experience of the present times, teaches us, that unless education can be so entensively diffused, that every citizen shall know his rights; and moral courage become so elevated, that he will maintain them with a firmness which no oppressor dare encounter, the liberties of our country must expire. Such a state of mental and moral improvement must be commenced in infancy, and is not to be expected, until female education is viewed in a light very different from that in which it is now regarded. In this country, it is not because people, in general, cannot have the means of information, that they are not sufficiently enlightened. Were the mind from infancy cherished equally with the body, the desire of knowledge, and of being useful and honorable, would increase with time, until it would become so strong, that no means of improvement would be neglected. But what are we to expect from those whose minds, if not corrupted with vulgar and grovelling ideas, remain uncultivated until the age of ten or twelve years? When the influence of mothers, shall be properly understood, and they shall be more capable of imparting to their offspring, that knowledge, and inspiring them with those principles which are calculated to render their characters distinguished through life, then, and not till then, will freedom and happiness be secured.

With the hopes of elevating the standard of female education, and adding to the influence, usefulness, respect, ability and happiness of woman, the following essays have been written. With what reception they will meet, time must determine. It is hoped, however, that mothers will give them a careful perusal. If the female sex are not desirous of promoting their own influence and happiness, these hints will prove ineffectual. Let them enquire, why their sex has been for so many ages, enslaved, why even in this enlightened age, provision is made, at the public expense, for the education of man, while woman has been neglected?

The following essays have been more particularly devoted to those branches, which have hitherto been only *nominally* introduced into female education, and which it is proposed to extend, not that they are most important, but because it was thought unnecessary to dwell on those which are universally studied. Whilst it is proposed to carry female education to a greater extent—to open to those who have the time, inclination, and capacity, the same fountains of knowledge, from which the other sex draw; and to erect a standard which will awaken the spirit of emulation, and elevate the character of female education in all ranks of society; the neglect of those studies which have hitherto formed a part of it, has not escaped a just censure.—That they might not be neglected, they have been made the first part of the course. No arrangement has been made of the ornamental branches of education, because it was found inconvenient to confine them to any particular time. Nor have they been examined as was at first proposed, because it would have extended our pages to too great a number. For the same reason, we have omitted to say any thing of the French language. The number who now study this language, the extensive introduction of French words into the English tongue, and the facility with which it may be learned gives it peculiar claims to our attention. The course pointed out and examined in the following pages, will be adopted in the Columbia Female Academy and carried out as far as warranted by public patronage. No situation appears so eligable, as that of this institution. Whilst it is no less salubrious* than the surrounding country, it possesses all the advantages to be derived from a city. It is not the occasional *sight* of a city, that will confer upon a young lady its advantages. In all cities there is a circulation of general information, and a polish of manners, which can only benefit those living in it.

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* Whilst in many parts of the town, during the past summer, the inhabitants have been visited with sickness, the Academy and its immediate vicinity have been entirely free from these evils.

ESSAY I.

A great deal has been said on the subject of *Female Education.* Much, however, as has been said, we fear, that the public has not been much enlightened. We have not the vanity to suppose we shall effect what so many have failed to accomplish. It requires more than ordinary powers of mind to change the current of public opinion.—We may, however, gain some advantage by altering the mode of discussion. While some writers on this subject, declaim in general terms against the negligence of parents, with respect to the education of their daughters, and speak of its importance in terms equally vague; others give us long metaphysical disquisitions on the nature of the mind, the difference in the dispositions, mental powers, and habits of children. Such discussions may appear very learned, but they will leave nothing more on the mind of the reader than a few vague impressions. If we would throw light upon the subject, we must not content ourselves with speaking in general terms; but each branch of education must be separately examined. What its object—to what extent—and in what way it should be taught to answer the end in view, must be duly considered. This is the manner in which we propose to treat the subject, after we have discussed it in general.

The time was, when woman was thought incapable of climbing the hill of knowledge; or of gazing from the heights of Science upon the beauty and grandeur of Nature. That day is past; and man under the influence of nobler feelings, and with views more liberal, rejoices to accompany his fair companion in the walks of Science. A wider field is opened to her view, and she is invited not only to gaze on its scenery, but to partake of its fruits. While with pleasure, we hail her progress, we would say to her, beware lest you mistake flowers for fruit. There seems to be a disposition, too prevalent among us, of making a display. To fascinate the eyes of the public, appears to be the order of the day: and he who can hoist the highest flag—inscribe on it the largest letters, and exhibit well the trappings, most alluring to the public, acts the most profitable part. He, however, who knows no other rule than that of duty, looks upon all this as the cobweb of craft, in which the mind may be entangled and destroyed, but not instructed. How important soever attainments may be, in the higher walks of science, without a thorough knowledge of the elementary and more indispensable branches, they are the plumes of the peacock covering, but not removing the deformities of the daw. We do not pretend to say to what height the female mind may soar, but this we know, that young ladies can not acquire in one or two years, what young men can only attain in five or six. It must necessarily follow, that if they attempt to pursue the same course, without devoting to it the same time, they will return home with a garb of knowledge not even sufficient to conceal their ignorance. There is nothing against which we should more carefully guard. The most fatal ignorance is, not to know that we are ignorant. If we point out a course too extensive for the time employed, their education will consist of a smattering of many branches without a knowledge of any. Their education will be like the poem described by Horace.

"Incœptis gravibus plerumque et magna professis
Purpureus late qui splendeat unus et alter
Assuitur pannus;"

Let no one, however, mistake our meaning and suppose that our views of female education are contracted. There are no attainments in science, which we would not rejoice to see those make, who have the necessary leisure and perseverance. We would, therefore, recommend an academical course to be as extensive as any might require. We would guard only against that superficial gloss, which pampers vanity, engenders a restless disposition to change from one study to another, distracts the mind, leaves it without any substantial knowledge, and without discipline; and what is worse, without perseverance; without a taste for, and consequently, without the hope of acquiring real knowledge.

We think it *absurd* that a young lady should be performing experiments in Chemistry and Natural Philosophy, before she is well acquainted with the simple rules of Arithmetic. Will the *learned* miss who can *prate* about gas, the laws of attraction and the motion of fluids, condescend to look at a *common* Arithmetic? Or is it of more importance to be able to shoot a gas pistol, than to be acpuainted with Arithmetic? And yet what more than a mere smattering of the higher branches can be obtained without the first principles. Will one, who knows not the difference between one eighth and one sixteenth, be able to understand the laws of definite proportions in Chemistry? Will she know *any* thing about the atomic theory? In Natural Philosophy, will she comprehend the laws of gravitation, of motion, or of the pressure of fluids? Yet we are afraid that *many* commence these studies, before they understand the *Rule of Three.* It is true, the bright flame of a gas light is more dazzling to the eye of a spectator, than a few figures in the Rule of Three; and the explosion of fulminating powders makes a greater impression upon the ear. Besides these things will be more talked of afterwards. We, on the contrary, would insist, that each study should be introduced in its proper place, as the mind is prepared to receive it with advantage. But proposing to give our views on each subject, separately, we will dismiss our task for the present.

ESSAY II.

We observed before, that metaphysical discussions on the subject of Education, were unimportant to the public at large. A difference of opinion, however, as to the mode of training the mind, compels us to examine some of its principles. Some seem to think the task of education performed, when the memory is well stored; others are afraid, the memory may be cultivated at the expense of the judgment. All the difficulty vanishes, when the connection between these two faculties is properly understood. It cannot be doubted, that the memory may be cultivated at the expense of the judgment. Lord Kames says, that "it is a noted observation, that a great or comprehensive memory is seldom connected with a good judgment." Nothing is more common than to hear persons speaking of a man who has a good judgment, but a bad memory; or of one who has a good memory, but a bad judgment. The reason given by Lord Kames, is that "a man of accurate judgment cannot have a great flow of ideas; because the slighter relations making no figure in his mind, have no power to introduce ideas."* A little attention to the operations of the mind in acquiring knowledge, will enable us to form correct notions, both with respect to the sphere of the memory, and that of the judgment, All our ideas, says Locke, are, First, *ideas of* SENSATION: Secondly, *ideas of* REFLECTON.

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*Lock's opinion is the same, vide B. XI. S. II.

Our ideas of sensation compared with those of reflection, are few. In the acquisition of every idea of reflection, the judgment is more or less exercised. All ideas of reflection, are really so many decisions of the judgment, upon comparing and combining those of sensation. To be compared or combined, their resemblance, their difference, and their relations with respect to time, place, &c. must be perceived. The memory, therefore, must retain them. Knowledge, says Locke, is the preception of the agreement or disagreement of our ideas. This agreement or disagreement can only be perceived, when the ideas are in the mind: they can be in the mind, only when retained by the memory: therefore, the judgment depends upon the memory: and they must go hand in hand. An accurate judgment depends upon the acuteness of perception; and in proportion, as the memory gives a feeble representation of the ideas to be compared, the judgment will be weak. In importance, Locke ranks the memory next to preception. Each of these faculties should be cultivated according to its importance. Knowledge, to be usefnl, must be systematical, and the object of Education is, (or ought to be) by a proper discipline of the mind, to systematize its mode of thinking. This can be done, only by digesting our ideas well, as they are received. Some persons look upon an immense collection of facts and ideas, labouriously stored up, as the possession of great knowledge. Such persons may improve their memory to an incredible extent; they may store away facts and ideas, like so much lumber: they may change its position; they may be useful in transmitting it to others; but they will never rear any great edifice, or display any thing original. Others, again, may plan well, but wanting sufficient materials, they will fail in the execution. Memory is the great depository of materials; judgment, the architect that is to dispose of them. The mind may be too much employed in acquiring ideas from external sources, and become a mere passive receptacle of ideas, without pausing to examine the connections and relations of those already acquired; without comparing them, and perceiving their agreement or disagreement, and classing them accordingly. Such a mind will be a chaos of confusion, and the judgment inaccurate and weak.

Another faculty of the mind which requires particular attention, (and cannot be much improved,) is the power of associating ideas. Whenever the power of the memory arises from the association of ideas, it will be lasting, and the judgment accurate. There are, then, two kinds of memory: the one rapidly grasping ideas which are but slightly connected; the other receiving them slowly, except it already has others with which it can associate them. The one will be nearly as quick in the commencement, as after long exercise in a science. The other will be slow at first, but its rapidity will increase in proportion to its acquisitions. The former is rather a technical memory, learning the signs, rather than the things signified, and acquiring but little knowledge: the latter is employed more about the ideas than their representatives, obtaining real knowledge. The acquisitions of the former, being more the shadow than the substance, are evanescent; those of the latter, being real knowledge, are permanent. Throughout the whole course of Education, we must recollect its natural operations. The course to be pursued from the child in the cradle, to the philosopher who scans the laws of the planetary system, is nearly the same. The child must receive the ideas of sensation, and be able to retain them in its memory, before it can acquire those of reflection. When the ideas of reflection appear abstruse to the child, those of sensation must be recalled. As we advance in science, every difficulty must be removed, by recurring to what is perfectly comprehended. Few consider how much we are aided by appealing to the senses. The more abstruse theorems in mathematics would be comprehended by few, without the aid of the figures used in demonstration; and often the demonstration is forgotten, as soon as the impression of the figure wears off from the mind. The student in Geometry follows the course pursued by the child. The truths he has already acquired, are to him, what the ideas of sensation are to the child Those from which his conclusions are to be drawn, must be, first, fixed in the mind, and then compared. Until he has done this, he is unable to arrive at his conclusions, and when bewildered, he must recur to what he understands. The philosopher, we say, pursues the same path. His conclusions are to be drawn from facts; these must be retained in the memory; they must be compared, before his conclusions can be drawn. If he falls into an error, he can only correct himself by returning to the facts with which he set out. In this manner, we have arrived at all the laws in science, discovered their beauty and harmony, and formed systems. Hence the difficulty of ascertaining the laws which govern the wandering comet, and of explaining those phenomena which rarely occur. Let all be taught the proper mode of acquiring knowledge, so far as they are taught at all, and a new order of things will arise. The materials of knowledge will not be collected by the few alone who intend to use them. Education will be obtained with more facility, be more generally diffused, and its standard among all classes will be more elevated; until, even in the lower ranks of society, those may be met with, who,

> "Find tongues in trees, books in the running brooks,
> Sermons in stones, and good in every thing."

According to our views, the *memory* and *judgment* should be so exercised as mutually to strengthen each other. This, we think, is the course nature dictates, and to her we look for the key to her inmost recesses.

ESSAY III.

In our present number, we propose to make some remarks upon education in general. Its object, we say, is the same in every class of society, from the ploughman to the philosopher, and from the washerwoman to the lady surrounded by her attendants. It is to render them more useful and happy in their respective spheres—capable of serving themselves better and benefitting others more. This implies the necessary power, and the proper mode of exercising it. It is mind properly exercised, which renders man "the indisputable lord of creation." Considering only his physical constitution, he appears inferior to almost all other animals, exhibiting in infancy the most helpless, and in old age the most imbicile condition. Unprotected by nature, either from the chiling blasts of winter, or the vertical rays of the summer's sun; too feeble to combat the stronger, and not sufficiently armed to subdue even the weaker animals, he would, without art, be the most contemptible and wretched of all beings.* But what a contrast to this, is his character, as seen in the light of science, adorned by all that art bestows? The surges of the ocean cannot arrest him in his course; he draws the whale from his deep and gloomy chambers; amuses himself with the lion and tiger of the forest; employs the labours of the elephant, and decks himself with the toils of the worm. He not only examines the materials of the great globe itself, and the laws to which they are subject, but he even notes the deviation of the planets in their orbits. In short, he brings to light the secret operations of nature, and enriches himself with her spoils. Every one will readily acknowledge, in theory, that all this is the result of knowledge acquired by the exercise of the mind; but few admit it in practice. How happens this? It is assuredly the result of incorrect reasoning. We believe, as firmly as we do any proposition in mathematics, that every individual, so far as depends on his own exertion, is successful and happy in life, in proportion to the knowledge he possesses, and the prudence with which he uses it. If the exercise of knowledge renders the savage superior to his fellow inhabitants of the forest, civilized nations superior to savage, and some civilized nations superior to others; it must be a general law with regard to the individuals composing them. In the physical world none will deny that a ball of four pounds will strike an opposing object with twice as much force as one of two, if they move with the same velocity; or with four times as much force, if the former move with twice the velocity of the latter. Why should it be denied, that twice as much knowledge, equally as well exerted, will produce twice the effect, or four times as great an effect, if doubly as well exerted? That it really is the case, would be manifest, did not men differ in their occupations and principles, which lead them to employ their knowledge in different ways, in their energies, which produce greater or less degrees of exertion; and in their feelings, habits, circumstances and connections, all of which controul more or less, their principles and powers of action. As all of these affect our usefulness and happiness in society, they should receive attention proportional to their influence. Let a man's principles be ever so pure, his intentions ever so good, and his dispositions ever so amiable, without knowledge, he will be very little more than a mere cypher. On the other hand, if his principles are bad, and his dispositions evil, greater knowledge will only make him the greater fiend, treasuring up the more misery for himself, diminishing, to a greater extent, the happiness of society, and entailing on posterity the greater curse. To know how to be good, is more important than to know how to be wise. It should, then, be the object of education not only to teach us how to acquire knowledge; but how to use it aright.

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* See Herschal's Discourse on Natural Philosophy. a work deserving the careful perusal of every lover of Science.

The happiness of a people is not to be estimated by the extraordinary attainments of their literati, but by the intelligence diffused throughout the community, the purity of the principles which direct it, and the equality and intercourse to which it gives rise. It is this which governs public opinion, erects the standard, and exhibits the sanctions of morality; punishes vice and rewards virtue, and controuls the destiny of the nation. This intelligence is the guardian of liberty, teaching the people what are their rights—what their importance—when to submit—and when to resist. This view of the subject presents the claims of female education in a much stronger light than they would otherwise appear. Occupying every rank in society, giving to the mind of man its earliest impressions—impressions which frequently characterize his whole life, associated with him in every thing, one with him in feling and interest, the influence of woman is little inferior to that of man. Her sphere of usefulness is extensive, and must enlarge in proportion to the increase of her knowledge.—Why, then, in every age has so little attention been paid to her education? In every civilized country, academies, colleges and universities have been estabished at the public expense, and systems of education prescribed to elevate the character of man, increase his influence, and add to his happiness and usefulness. Why has woman been neglected?—Cannot *her* character be elevated by the light of science? Cannot her usefulness and happiness be increased? Have they not been increased, and will they not increase, in proportion as she advances in knowledge? Why should not systems of education be prescribed for her? It is this want of system—of some standard—some regular uniform course of instruction, which throws so many obstacles in her way, smothers the spirit of emulation, cramps her energies, prevents the effects which her knowledge of science would produce, from being seen, renders her education imperfect, and causes it to be undervalued. Will it be alledged, in opposition to this, that she is inferior to man—incapable of making the same acquisitions? Suppose we grant it: does it follow that her inferiority should be rendered greater by debarring her from the advantages possessed by man?

Fathers seem to think wealth the best dowery they can give their daughters,—one, which will enable them to marry to greater advantage; and this appears to be the principal object they have in view. They forget that

> " Riches are pass'd from hand to hand
> As fortune, vice, or folly may command;"

that their daughters will be the more loved and respected, and consequently the more happy, the more intelligent and amiable they are; and that the money expended in giving them a good education, would not diminish their fortunes very much.

One great source—perhaps the greatest source of earthly happiness, arises from social intercourse, particularly with those who are most identified with us in interest and feeling. But intercourse can neither be agreeable nor profitable between the learned and unlearned, the refined and unrefined. In the sight of the learned and refined, ignorance will be contemptible, and the want of refinement disgusting. With whom should our intercourse be more intimate or agreeable than with the companion of our bosom? Upon whom is our domestic happiness more dependant? Who needs more the qualities which will command our love and respect? With whom should our feelings and interest be more identified?—Were there no other argument, did woman possess no influence in society, this consideration alone, that she is the companion of man, should induce us to lead her to those fountains of knowledge, from which we, ourselves, delight to drink.

ESSAY IV.

In our preceeding numbers we have urged the importance of examining each branch of Education separately; we have endeavored to point out the connection between memory and judgment, to shew the effects of education in general, and its importance to women, owing to the influence she possesses over the destinies of a free people, and which arises from the station she occupies. Her influence is exerted chiefly in two ways. As a mother, she moulds the character of those upon whom depends the weal or woe of the nation.—As the companion of man, upon her depends, in a great measure, the happiness to be derived from social intercourse: To her, in this twofold relation, it belongs to cherish those dispositions, which render the family circle the seat of bliss. Nor is the influence of these dispositions confined to the domestic circle, or to neighborhoods, they extend to the internal happiness of the nation. Ovid says, "*scires e sanguine natos*," you may know the offspring from their extraction. We would add, you may know the character of a nation from that of its females. The character of every individual is more or less influenced by this intercourse with others. In early life, it is almost entirely governed by those with whom we associate.

The wisest of men has said; "he that walketh with wise men shall be wise: but a companion of fools shall be destroyed." The truth of this is remarkable in relation to children. If children are proficient and amiable, it may almost be taken for granted that their mothers are so. On the contrary, if they are proud, stubborn, dull, and intractable, these traits may generally be found in the character of their mother. In female education, then, the main objects are to cultivate the understanding and improve the disposition. Nor should the latter be considered of minor importance; it is of every importance. Of how many may it be said "Le talent l'avait doue la nature n' etait plus qu' un don fatal?" The talent with which nature has endowed him, is but a fatal gift.

We have already made some remarks on the defects of female education, arising from the neglect with which it has been treated, and the consequent want of a systematical course of instruction, prescribed as a standard. Suppose no such standard had yet been adopted for the education of young men, who does not see the want of uniformity—of stimulus—and the negligence that would be apparent in the education of our youth? If, then, a uniform system be of so much importance, and female education be worthy of public attention, why should not it also be directed by some uniform system? But how shall such a system be adopted? And who must adopt it? What are the difficulties to be overcome? We would briefly observe, in passing, that an institution, capable of giving character and uniformity to female education, should be endowed with apparatus suited to the course to be pursued—that the course of instruction and the regulations should be adopted by a body of trustees, and the whole rendered as permanent as possible. Individual efforts will never be permanent—nor will an individual ever provide an adequate aparatus, with the prospect of having to sacrifice it at some future day.* But further, an individual cannot adopt such a system as is required. Every man has his own course laid out for his daughters. This puts an end to every thing like a uniform system.

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*An institution properly furnished should have connected with it, a select library. No pains should be spared to induce a habit of reading, and to create a thirst after knowledge. Without these, to say the least, education is imperfect: they are the only sure foundation of future improvement. A library for this purpose ought to contain the best historical and classical works in the English language, with such scientific works, as the course of study adopted might require as books of reference. Why are large libraries thought an indispensable requisition in all institutions intended to complete the education of young men, and none looked upon as necessary in similar institutions for females?

In selecting studies for females, these three things should be kept in view: First, such as are best calculated to improve the mind: Secondly, such as will answer best the practical purposes of life: Thirdly, those which improve most the dispositions. Geometry may be cited as a good instance of the first, grammar, of the second, and belles lettres as an instance of the third class. Moral philosophy should form a part of the studies of every well educated person, and particularly of those who are to be mothers. Too little attention is paid to the effect of different studies upon the moral character. The person who has grandeur, elegance and tenderness in his thoughts will exhibit them in his conduct. A certain divine has said, "that he who drinks beer will think beer." With equal truth, it may be said, that he or she who thinks low and base thoughts, will do low and base acts. Hence the morality of nations is an exponent of their religion. This intimate connection between our thoughts and actions, is overlooked, and even denied by some shallow thinkers. One little syllogism, however, settles the point. All rational acts are the result of reason (i. e.) of thought; an action is the result of thought only when it accords with it: therefore, all bad actions are the result of bad thoughts. Cæsar's language is characteristic of his conduct, where he says; *Quid times? vehis Cæsarem.*" But we cannot at present, dwell on this matter, We propose in our next number to suggest such studies as we think suitable for an academical course of female instruction. We shall make a few remarks on some of the lower branches, and proceed to examine, separately, some of the higher branches of study, the utility of which is yet disputed.

ESSAY V.

We have already spoken on the subject of Education in general: and have been led to consider its objects to say something of its extent, and of the mode in which it should be conducted. If what we have said of the importance of knowledge, and the influence of the female sex, be true, her education should be the same in kind and extent, as that of her companion, man, as far as the nature of things will permit. It should be nearly the same in kind, in order that children, in early life, may reap all the advantages which can possibly be derived from the instruction of their mother; that they may receive the best discipline when most susceptible; that their minds may be made familiar with science even in childhood, and may thus be prepared for making more rapid advances in their academical and collegiate courses. The want of such instruction is always manifest in those who have ignorant parents. To such, the simplest things are wonders at which they gaze with astonishment. It should be nearly the same in kind and extent, as that of man, that she may be capable of enjoying all the benefits and happiness to be derived from social intercourse—capable of so entering into her companion's views as to hamonize with him in feeling and interest, and be able to understand the language of science, whether heard in the conversation of a learned companion, or exhibited in the works of Nature or of Art. Why should every thing around her, be shrouded in mystery? Why, for the want of knowledge, should the treasures of Nature and Art contribute so little either to her enjoyment, or to her mental and moral improvement? It must be conceeded that innumerable objects present themselves to the most scientific, which they cannot understand. Yet they are not mysteries to such, in the same sense, that they are to the ignorant. The man of science knows, they are subject to laws the same or similar to those which govern the objects with which he is acquainted. In him they excite a lively interest, afford exercise to his mind, and contribute equally to his improvement and felicity. To one ignorant of Botany, the garden, decked with foliage, and arrayed in bloom, or the landscape with its vast variety of shrubs and flowers, may as a whole appear pleasing; but to the Botanist every shrub, every leaf, and every flower yields pleasure and improvement. Similar observations may be made in relation to the objects of every other branch of science.

We have said that woman's education should be the same in kind and extent, as far as the nature of things will permit, and we have assigned our reasons for it. It cannot indeed be so complete, particularly in certain branches; because she comes to maturity sooner; because in some of the sciences there are things which are not so well calculated to cherish those tender and delicate feelings which are the ornament of the sex; (we have already given a hint of the initiate connection between thought and moral feeling) and, lastly, because the ornamental part of her education must necessarily occupy more or less of her time. All we contend for, then, is that the same means of acquiring knowledge be placed within woman's reach, that is placed within man's—that her education be conducted systematically, according to some standard, and that it embrace a general knowledge of science. In the present imperfect state of elementary education, we would not venture to propose more than the following, as an academical course. We shall accordingly confine ourselves to the three last years of instruction, taking for granted, that they are prepared for the studies assigned to the first year. The first year, we would have employed in Arithmetic, Grammar, and exercises in Reading and Writing: also a course in Geography and History.

The second year, we would have employed in a more extensive course of Geography and History, including ancient and modern Geography and History, to which we would add descriptive Astronomy, Belles Letters, Botany, and Algebra and Geometry to some extent.

The third year, we would have spent in obtaining a knowledge of the most important laws of Chemistry and Natural Philosophy, and of the arts and practical purposes to which these laws are applied. The most important branches of Moral Philosophy should be studied, a knowledge of which is necessary to enable us to reason correctly, in relation to the various duties devolving upon us in society, and the course of conduct we should pursue under given circumstances. With this study, as well as with that of Belles Lettres, is necessarily connected a knowledge of the human mind, as we will show at another time. During the third year, we would also have the studies of Algebra and Geometry continued. During the second and third years, composition should be attended to, punctually. Owing to the length of time required for the study of the languages, the diversity of opinion on this subject, and the strong prejudices which remain to be overcome, we have not ventured to make any of them an essential part of a regular system. For nearly the same reasons, we have not spoken particularly of ornamental education. But to these we shall allude hereafter.

ESSAY VI.

We propose, at present, to make some remarks on the course, which we have suggested. We have said that the first year should be employed in attending to Arithmetic, Grammar, and exercises in Reading and Writing. The reason we assign for this, is, that they are so imperfectly taught in the common schools. In these, children frequently fall into bad habits, particularly in reading, many of which it is a laborious task to correct. The knowledge acquired of Arithmetic is almost mechanical. The children are taught by imitation, not by reason. The Teacher works, perhaps, by the rule, the child by the example of the teacher, doing as the teacher did. The teacher perhaps understands the rule. But child and teacher are frequently alike ignorant of the principles upon which the rule depends. No reference is made to the great fundamental principles of the Science. Of course none are taught. Principles to which the mind should early and constantly be directed, are lost sight of. Grammar is taught in a similar manner. The teacher knows that such and such words are nouns or verbs, because the person who taught him said they were. He also corrects false syntax with great confidence, and, if required, could prove he was right by the *Key*. It may be, he has some slight knowledge of Grammar. Still the child is taught more by memory, than by reason. Every thing like science is abandoned.

It would be well did the evil stop here, but it seldom does. Under its influence, the mind really becomes mechanical, and often continues so not only through its academical, but I fear, through its collegiate course, and probably through life. Genius alone is able to throw off the fetters forged by this mechanical system, assume its independence, and examine things for itself. A great majority even of those who study the languages, seem to be content with their knowledge, provided they can get an English, for every Latin, or Greek word. Whether they know the meaning of the English word, whether the sentence be construed right, and whether they have ascertained the sense of the author or not, are to them matters of no consequence. Their study is more a manual than a mental labor. Another reason, why we would continue the study of Grammar, is, that admitting it were taught correctly, yet it is a difficult study and requires more time than perhaps any other. In short, the learner can only approach towards perfection gradually as the mind expands and becomes matured. From the simplest rules in grammar to the most abstruse principles in criticism, is one continued chain, in which not only the infant mind, but genius with all its strength, and oasted acquisitions, may find ample scope for exertion. What relates to grammar should be taught according to this natural connection. First, simply the artificial rules, or what more exclusively relates to the coenection of words with each other, should be taught. Next, the connection between words, as signs, and things, should be studied. Lastly, how things may be represented by signs so as best to make that impression upon the mind which we desire to make, should be studied. The first relates chiefly to the different parts of speech: the second, to the grammatical structure of sentences, and the choice and arrangement of words: the third, includes Rhetoric, Belles Lettres, Logic &c.

The science of Language is one of the most important, and at the same time, one of the most difficult. It is the key to all other sciences. To read with facility, and readily to comprehend what we read, is to have secured the most important step up the hill of science. This is one of the great advantages to be derived from the science of Language. In the study of Grammar, few look upon this as one of the great objects to be gained. It would be studied more, were its importance more fully apprehended.

We have recommended a course of History and Geography for the first year, to be pursued to a greater extent during the second. The value of these studies are generally admitted. On their importance, therefore, we think it unnecessary to say any thing. Nor will time permit us. We have made them a part of an academical course, because they cannot be excluded until they are more generally, and more correctly, taught in the common schools.

We have made Astronomy, Belles Lettres, and Botany, the principal studies of the second year because they are less difficult and more generally studied than those assigned to the third year. We have also recommended that Algebra and Geometry be commenced during the second, and continued through the third year. The necessity of this is obvious.

The acqusitions made in these during the second year will be too limited, and some knowledge of them is necessary to the study of Natural Philosophy. I am aware some think otherwise. They are those, however, who are too ignorant of these sciences to be judges in the matter—those who mistake a few experiments in Natural Philosophy for the great laws of the science. We have made Natural Philosophy, Chemistry, and Metaphysics, the studies of the last year, because they are more abstruse, and not likely to be studied by so many. We have, as far as circumstances would permit, placed the less difficult branches, and those more generally studied, first. Those that are more difficult, and excluded by many from Female Education, we have placed last.

By this arrangement, those who have not the time or capacity for the higher, can confine themselves to the lower branches. We have finished what we have to say in relation to the arrangement of these studies. A few other enquiries in relation to it yet remain.

We have yet to enquire whether the time assigned is sufficiently long for the course proposed. To this we would reply, that to us, it appears sufficiently long for those whose minds are somewhat matured, or those who have the capacity, the inclination and industry, which they ought to have. We believe that the majority of young ladies may, in the time specified, acquire a knowledge of the great and leading principles of those branches which we have selected. More than this need not, and is not to be expected in a course of education. Be the course what it may, the acquisi tions of each individual will be, not only proportionate to the facilities afforded by the institution, but also to the capacity and diligence of the individual. The progress of some will be like the flight of the eagle, while that of others will be like the creeping of the snail. Those who cannot complete the course in the usual time, must leave it unfinished, or continue it longer. A longer time will also be necessary for those who engage in a more extensive course. Those who study the languages will require a much longer time. For such perhaps it will be most convenient to make considerable proficiency in the language or languages, before they commence the latter part of the course we have proposed. We have no opinion of having every thing studied at the same time, and nothing learned. We pass on to examine the different branches.

ESSAY VII.

ASTRONOMY.

The study of astronomy has become so common, that little need be said upon this subject. We before observed, that in selecting studies, regard should be had to the effect which they are likely to produce upon the moral feelings. Those branches of science which lead us to the contemplation of grand and sublime objects, are eminently calculated to elevate and ennoble the human intellect. Perhaps, in this respect, no other science surpasses Astronomy. To the ignorant, the Heaven appears, as a field " thick sowed with stars." He sees little or no harmony in the motion of the heavenly bodies. He discovers no great laws by which they are governed—no proofs of incomprehensible wisdom—no omnipotent arm overruling all their motions. But how different are the views of the astronomer. To him, the starry firmanent presents a spectacle of grandeur, in the contemplation of which, imagination itself is exhausted. Far as thought can soar above, beneath, North or South, East or West, one boundless scene of systems beyond systems, subject to unchanging laws, display a magnificence, wisdom, and power incapable of resulting from the hand of any other than that of a self-existing and eternal Being. While the dignity of man is exalted by the contemplation of the innumerable objects subject to his control, and subservient to his happiness, his pride is humbled by the insignificance into which he sinks upon beholding the wonders of creation. He becomes the atom of a globe which is itself but the atom of the great and august temple of Deity. Such an immense fabric, " so well proportioned in all its parts—so complicated, and yet directed by laws so simple, evidently points out the wisdom of an Architect as far above our limited conceptions, as that power necessary to call the universe into existence."*

Atheism, in the light of Astronomy, loses its claims to intellect. The study of this science leads us not only to conclude, that the great fabric of the universe is the workmanship of an allwise, omnipotent, and benevolent Being, but, that the same Being pervades and governs all things ; since the same exertion of power is necessary to keep all things in existence, which brought them into being. From this science, the writers on Natural Theology have deduced many important arguments to prove the existence and attributes of the Supreme

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*Vide Wallace's Astronomy, p. 247 ; a short, but excellent essay is prefixed as an introduction to the Solar System. Part iv.

Being. Its sublime contemplations are admirably calculated to inspire us with the loftiest sentiments of religion and moral grandeur. Great power, exerted with apparent ease, even in the works of art, impresses us with the emotion of sublimity. But how trivial is this to a world in motion. How much more sublime is the thought of

> "Orb above orb ascending without end!
> Circle in circle, without end, inclosed!"

* * * * * * * *

> "What involution! what extent! what swarms
> Of worlds, that laugh at *earth!* immensely great!
> Immensely distant from each other's spheres!"

But it will be said of what use is this study? Have we not shewn its happy effects upon the mind? Is it of no consequence to know what kind of a world we inhabit? Whether it is flat, round, or sheroidal? Whether it is subject to any revolutions or not? What are the laws by which these are governed? What changes do these revolutions produce? And in what way do these changes affect us?—What are the heavenly bodies which surround us, and afford us light and heat?—Should we be ignorant of all these things, when a general knowledge of them may be easily acquired? And, finally, I would ask the prejudiced mind, what benefit do you derive from your ignorance of these things? Pleasing as this subject is, we cannot, at present, pursue it farther. A word or two on the extent to which it should be studied, and we shall dismiss it. A young lady should, at least, obtain a knowledge of the number of planets, composing our solar system, and their satellites; their relative magnitudes and distances from the sun; their relative quantities of light and heat, and the relative force of attraction by which they are drawn towards the centre of motion; also, their relative velocities: the time they occupy in revolving around the sun, and upon their axes; their relative positions to the sun in different parts of their orbits, and the seasons consequent upon their different positions, also their velocities in their orbits per day, per hour, &c.; and the velocity of inhabitants on their equators, &c. per hour, per day, &c. These may be made subjects of calculation by the pupils, which, while it will serve to interest them in the science, will no less serve to impress upon their minds the great and leading principles of the science. In the text books commonly in use, the mean distance of each planet from the sun, its time of revolution around the sun, its diameter and time of revolution upon its axis, are usually given. From these data, a variety of calculations may be made. It is not necessary that these should be very exact in order to understand the principles upon which such calculations are made.—These too, will open the way to those which are more abstruse. In addition to the above, the moons phases, eclipses, the theory of the tides, &c. should be understood. It will be remembered, that here, we have only given an outline of what the study should embrace. We would carry it as far as the capacity and time of the pupil will permit. We would observe, that in many of the text books, used in female schools, the problems are too scanty, and not varied enough. The teacher should remedy this defect as far as time and circumstances will permit. Another defect is, that in general, the problems on the celestial globe are entirely neglected. How happens this? In fact few who profess to teach Astronomy, seem to know that this globe was intended for use.*

ESSAY VIII.

RHETORIC, BELLES LETTRES, CRITICISM AND LOGIC.

Our limits will not permit us to examine these subjects at present. Nor do we deem it necessary, as they have long been considered an essential part of a liberal education. We are aware, that with the ignorant, they still have to encounter prejudice. We must, however, content ourselves with stating some of their leading objects and effects. The rules which they embrace are drawn from experience. Orators existed before rhetoricians, poets before critism, &c. The object of rhetoric is to lay before us the modes of argument, the forms of speech, and the various ways in which orators attempt to operate upon the mind. The study of rhetoric ought to improve our intercourse with society, render us capable of judging of the merits and demerits of public speakers, and add both to our enjoyment and influence. Belles Lestres

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*The study of the celestial globe should enable the pupils, by the aid of an ephemeris, to determine the situation of the moon, planets, and stars, at any given time of the year. Knowing this, they will know their time of rising, setting &c., and be able to point them out. While this will excite their curiosity, and interest them in the study, it will give them a more correct notion of the revolution of the heavenly bodies, than it would be possible for them otherwise to obtain, and impress upon their minds many truths in Astronomy, in such *a manner as never to be forgotten.*

embraces a knowledge of the beauties, refinements and excellencies of composition, and necessarily presupposes a knowledge of the rules by which we are to judge of these.—Hence it teaches us to estimate authors, what to appreciate, what to reject, and how to improve ourselves in composition. Logic presupposing us to have some knowledge of the operations of the mind, is properly speaking, confined to the mode of reasoning. Every man who reasons correctly has, at least a practical, if not a theoretical, knowledge of its principles. It enables us to reason correctly, and to detect false reasoning. Criticism embraces a more extensive field than any of the preceeding. Presupposing a knowledge of them, it investigates their rules and the principles of human nature upon which they are founded. It inspires us, at one time, with emotions the most tender; at another, with the most cheerful. It leads to the comtemplation of whatever is beautiful, and excellent, or grand, either in the physical or moral world.—Hence it has the most beneficial influence upon our moral feelings. To set these branches in a proper light, it would be necessary so show wherein they agree, in what respects they differ, and what are the advantages which they respectively possess. Although necessity prevents us from urging the importance of these studies, yet did we feel ourselves capable of representing them in their true light, of raising our thoughts, and of expressing them in language corresponding, in elevation with these subjects; so as to enable the public to see their importance, and to awaken in the young, a desire not only of studying the principles which they embrace, but of reading at least the English classics with a view of applying them: we would readily undertake the task. While we think a knowledge of the great laws of Nature, upon which depend the sciences of Botany, Chemistry, and Natural Philosophy, is highly desirable, and more than compensates for the time employed in acquiring it; we by no means attach to it the same importance which we do to those arts of which it may truly be said,

> "These polished arts have humaniz'd mankind,
> Soften'd the rude, and calm'd the boistrous mind."

There is in the English classics a manliness of style, a grandeur of thought, and a moral sublimity, which are highly conducive to the improvement of the moral character. For examples of the influence of sentiment, look to England and France—the Englishman is weighing worlds, whilst the Frenchman is balancing atoms—the one is tracing the course of comets, whilst the other is searching for the fibres of a plant, or animal. In short without a knowledge of these branches, education wants that polish, and finish, which renders it attracting and useful.

ESSAY IX.

BOTANY.

The animal, the vegetable, and the mineral kingdoms, contain, each, inexhaustible treasures intended, no doubt, by their Benevolent Author, to contribute no less to the improvement and happiness of man than to the gratification of his wants. That we should be able to examine all the objects by which we are surrounded, is not to be expected. Neither our time nor our capacities will permit us to examnie them all, when viewed in classes or groups, much less when considered individually. Nature, lavish in her bounties, seems rather to have spread before us a rich repast, suited by its variety to the different tastes and inclinations of men; and from which a choice may be made, adapted to each one's capacity and condition. Nor is it necessary, either to our happiness, or improvement, that we should partake of all that is spread before us. Each source is inexhaustible, and, to a considerable extent, unfolds to us the beauty and harmony of the whole. If in the vegetable kingdom, we find that plants in their organization and growth, are subject to certain fixed laws, and are capable of being divided into classes, each of which possess properties, and are subject to laws, peculiar to themselves, we readily infer that the same is true in other departments of nature; and that the method of investigation is similar in other branches of science: Thus the cultivation even of one branch of science habituates the mind to classify its objects—to mark the peculiarities of different genera: also, those of the species, and those of the individuals which they comprehend—thus rendering it scientific, and preparing it for deriving improvement from all the objects by which it is surrounded. Since on the one hand, we are not capable of acquiring a knowledge of all the sciences, since on the other hand, the order and beauty of all nature's works are, in some degree, disclosed, and the mind rendered scientific and capable of improvement and enjoyment, by attending to some of the sciences, the only question is, which shall we select? For our own part, we have no hesitation in saying, that Botany is entitled to a high rank among the natural sciences, as a study suited to the female character, affording a source of the most rational amusement, and equally improving to the mind and moral feelings. The effect of this study upon the mind has, perhaps, never been duly appreciated. It involves in it, and is admirably calculated to illustrate both the principles of syllogism and induction. It is true, the labors of the student in Botany, are more of a syllogistic than inductive nature, descending from genera to species, and from species to individuals. Logical reasoning and Botanical investigations proceed upon the same maxim, that *whatever may be denied or affirmed of a genus, may be denied or affirmed of all its species;* and the same in relation to the species and individuals comprehended under it. When we have descended from the genera to the species, and from the species to the individuals, carefully noting at each step, the differences; first, the specific, and then the numerical, in order to have an illustration of induction, we need only retrace our steps, commencing with individuals and ascending to the highest genius, observing at each step, the extension of the general truths, derived from the examination of individuals, species, &c. To be brief, I shall only point out one more respect in which this science is admirably calculated to render the mind exact and logical in its reasoning. All confusion of thought and errors in reasoning, result from the vagueness of our complex ideas. Hence, logicians have always considered it a part of their duty to explain the method of defining those words which are the signs of our complex ideas. Instead of enumerating all the simple ideas for which the word stands, we have, by means of the distinction of things into genera and species, a more compendious method of defining words. When we wish to define a species, we point out the nearest genus and the specific difference; and we define an individual by pointing out its species and giving the numerical difference. The study of Botany then, is the practical art of giving definitions. The object of the student is first to ascertain the class; next, the genera; next the species; and lastly the individual. Nothing can be more manifest than the tendency which this process has to render the mind attentive and acute in discerning.—From what has been suggested, those who understand the subject, will readily perceive how much this science is calculated to improve the mind. That it exercises a happy influence over the moral feelings, needs little proof. It is the vegetable kingdom which clothes nature in all her beauty and grandeur. Without it, nature would have been a bleak and barren waste—the shadow of death and the emblem of the grave. Without it, the tropes of the orator, and the flights of the poet's imagination, would have been destitute of beauty and brilliancy. Without it, no rapture had ever kindled in the soul of the painter or the poet. In short, is there aught tender or cheerful, beautiful or sublime, that is not inspired by the beauties of the vegetable kingdom? Must not this science then, which leads to the contemplation of this wide field of nature, have a most happy influence upon the mind? To illustrate what we have said, we might refer to Virgil, particularly in his Bucolics and Georgics, to Milton, Cowper, Thompson, and almost every poet. The uses of plants in medicine render the science valuable for many practical purposes. The many distinguished persons, who have devoted themselves to this science, and the rapidity with which it is gaining ground, give to it a very great recommendation. With regard to the different systems, we shall only observe that the Linnæan is the easiest, and the Natural the most useful.

ESSAY X.

ALGEBRA AND GEOMETRY.

Arithmetic, Algebra, and Geometry, belong to the abstract sciences. A knowledge of these, to some extent, is necessary to all who would study physical science with advantage.—While Algebra and Geometry involve inquiries the most abstruse, they embrace many simple and important principles, within the comprehension of every ordinary mind. Even those who cannot employ them to any great extent, may have a sufficient knowledge of them, to understand the mode of reasoning by which we arrive at some of the most important truths in physical science. Hence we consider an introduction to these sciences, a prerequisite to the study of Natural Philosophy. Their advantages are, that they render things otherwise difficult, easy to be understood. They accustom us to the strict use of language in our reasonings—impress upon our minds the distinction between vague and loose reasoning—enable us to give a proper estimate to the evidence upon which our conclusions rest, and to know how far they are just. All these advantages, we may derive from a very moderate acquaintance with the elementary branches of Mathematics. I know of no science so well calculated to improve the reasoning faculties as that of Geometry, nor do I know of any, which has a higher claim to attention, either in male or female institutions. This science, I believe, is essential, if not to a theoretical, at least to a practical, knowledge of Logic. A moderate knowledge of Algebra and Geometry is requisite to enable the student of Astronomy to understand the mode by which Philosophers have arrived at their knowledge of the planetary system. And this is necessary to a conviction of the truth of the system. Unhappily the study of Astronomy consists, at present, in knowing how to turn a globe around. To point out the connection between the different branches of science, would be of great importance to the cause of education. Our limits, however, have not permitted us to do this.

ESSAY XI.

CHEMISTRY.

As Chemistry is, in a measure, excluded from female education, the reader will bear with me, while I attempt briefly to lay its claims before the public. If the dogma which has been, and still is the cant of ignorance, that no knowledge is of any use, unless capable of being immediately applied to some pratical purpose, (i. e.) unless it directly contributes, either to clothe or feed us, is still to determine the limits of our knowledge; then indeed, education must retrograde. Let it be observed that education consists not in art, but in science. To have a knowledge of the principles of Chemistry, and the purposes to which they are applied, is one thing, and to apply it to these purposes, is another. I do not expect that young ladies will ever become adepts in Chemistry, or that they will apply it to porcelain-making, sugar-boiling, or calico-printing. Nor do I know of many who study it in our colleges, that apply it to such purposes. In relation to all, except those who study medicine, ignorance might raise her usual cant: "I cannot see the use of it." Such judges should recollect, that the lilly and the toad are alike beautiful to the blind. The question presents itself, why is it considered an essential part of man's education, and not of woman's? But let us inquire, if its claims upon the attention of females be not equally as strong as those of many branches, long since considered a necessary part of female education. Amongst those who would exclude Chemistry from female education, are no doubt many who believe History, Geography, and Astronomy, to be indispensable parts of female education. What greater claims in point of utility, have they than Chemistry, except that they have been more generally studied, and an ignorance of them would be more remarkable? History unfolds to us the character and conduct of mankind in past ages; Geography lays before us the surface of the earth, divided into countries, and diversified with mountains, deserts, plains, valleys, rivers, lakes, seas, &c. Astronomy leads us to contemplate the heavenly bodies; to examine their figure, size, motions, their mutual relations and effects, and the laws to which they are subject. What, then, is the object of Chemistry? It is to examine the various substances which immediately surround us—which subject themselves to our senses, and effect us in various ways; and upon which depend, to a great extent, not only our happiness or misery, but life itself: also, to ascertain what their elementary principles—what the laws to which bodies are subject, and what the result of these laws, amidst the never ceasing change, produced by their decomposition and recomposition. Compared with Astronomy, Chemistry has a much greater extent, and opens a much wider field for discovery.—Whatever we see, touch, taste, or smell, is the object of Chemistry. The verdure of Spring, which refreshes the eye, the fire that warms us in winter, the lightnings which gleam in the summer cloud, the noxious vapor, and the fragrance of the rose, the viands of the epicure, and the scanty meal of poverty, are all objects of Chemistry. How few of the arts which supply us with the necessaries and luxuries of life, are not dependent on Chemistry?—Our salt, our sugar, our dyes, our paints, our medicines, all our articles of gold or silver, lead or iron, copper, brass, tin, or zinc, our wines, our vinegar, the china of the rich, the earthenware of the savage, the colored silks of the East, and the coarse woollens which clothe the poor, all depend upon the laws of Chemistry. But why attempt to enumerate the objects to which it extends? To know its importance, it is only necessary to know that it gives us a control over the food we eat, the clothes we wear, the water we drink, and the air we breathe. What improvement in domestic economy would take place, how many accidents might be prevented, what new discoveries might be made, and how much the comfort and happiness of society might be increased, by a general diffusion of Chemical knowledge, is hard to say.—The more it is diffused through the educated, the more will it spread amongst the common ranks of mankind. The course of Chemistry which I would recommend, is only such as is subservient to the general acquisition and diffusion of useful and practical knowledge. We consider all knowledge useful that contributes either to feast the mind, or gratify the real wants of the body. "The sensualist may imagine that he enjoys the world; but to enjoy it truly, is to be sensible of its greatness and beauty."

> "Presented to the cultured eye of taste,
> No rock is barren, and no wild is waste."

There are about fifty-six simple substances known in nature. Of these, only about thirty-seven are employed in the arts; and several of these are very limited in their use. To these we would confine ourselves, making a course of Lectures in Chemistry, to consist in treating of their sources, their properties, and the uses to which they are applied in the arts and manufactures.—Why is not a knowledge of the arts and manufactures considered of as much importance as that of the rivers, lakes, and seas on the surface of the earth? With Chemistry, Geology, and Mineralogy, are in many respects, intimately connected. A few lectures on these subjects, pointing out their objects, explaining their nature, and showing their relation to Chemistry, might be very properly introduced. It would enable persons to understand works on these subjects, and to peruse them with satisfaction. I would not, however, profess to make them a part of female education. I hate empty professions, although they are wonder-working, money-making things. It is no uncommon thing for a man, who has learned the technical terms of a science from some little catch-penny book, to become a teacher of a science—The consequence is, that worthless books are introduced into schools, and a system of smattering is substituted for that of education. It is better to show persons their ignorance, than to persuade them, they are wise.

Note---While, perhaps, no science is of more practical importance to mankind at large, than that of Chemistry; yet nothing more than the great laws of Nature, upon which it is founded, properly falls within the province of education. At the same time, it is true, that these cannot be permanently impressed upon the mind, without detailing at some length, many examples of their practical application.

ESSAY XII.

NATURAL PHIOSOPHY.

When we survey the stupendous works of Nature, all seem in motion, and her operations are still going on. We may truly say; 'day unto day uttereth speech, and night unto night shewith knowledge.' By agencies the most powerful, phenomena the most wonderful, are daily occurring. Wherever we look, we are struck with the astonishing effects produced by those mighty causes, which are regularly and continually operating. But oh! how language fails, and thought recoils, when tracing back from effect to cause, we contemplate the wisdom and power of Him who is the cause of all causes.

"Lightnings and storms His mighty word obey,
And planets roll where He has marked their way."

When we survey the surface of our globe, we see rivulets unite to swell the tide of some majestic river, which rolls on to disembogue itself in the ocean. We see the aged oak fall and moulder in the dust—the massy stone tumble down the precipice—even the hills wear away and the valleys rise. Vapours rise around us, rain in torrents descends, floods burst their way through the valleys, and sweep away not only the labours of man, but the sides of the mountain. The gale whistles around us, and the tornado spreads desolation over the forest. In one country, mountains of ice arrest the traveller; in another, he sinks beneath the burning sand. In some places, boiling water is thrown up many feet into the air; in other places, flames burst forth from the surface of the quaking earth, and moulten minerals roll down the mountain's side. Other things, though they astonish us less, please us more, and are subject to laws equally mysterious.*—The blue-tinged cloud, the golden rays of the setting sun, the rainbow, and all the beauties of the mineral and vegetable kingdoms are spread before us. To examine all these phenomena, is the object of Natural Philosophy. To discover the agents which operate in nature, and the laws by which they operate, is a task of the noblest kind. Nor is it less useful than noble. By a knowledge of the laws of Nature, we have made ourselves masters of the agents, she employs, and have rendered them subservient to our own purposes.

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*One thing may be more mysterious than another, because we have not the same means of examining it, yet the laws to which it is subject may be as easily understood when once ascertained.

"Serene philosophy,
Effusive source of evidence and truth!
Without thee, what were unenlightened man?
A savage roaming through the woods and wilds,
Rough clad, devoid of every finer art
And elegance of life."

Man himself is astonished at the wonders which, he is enabled to accomplish by the control, which his knowledge has given him over the agents of Nature. He rides with safety over the waves of the ocean—he moves over the land with the speed of an eagle; he leads the limpid stream along the mountain's side—he tames the lightnings of Heaven, and effects, by the powers of nature, what all the world could not effect without a knowledge of Philosophy. But what is most strange, the knowledge of a few simple laws serves as a key to all these mysteries. None who has not studied Natural Philosophy can imagine to how many things, the laws of motion and gravitation are applicable.

ESSAY XIII.

MORAL PHILOSOPHY.

We have already observed, that the happiness of a people is to be estimated by the intelligence diffused throughout the whole, and the principles which direct it. The happiness or misery of a people is inseparably connected with their morals. No Laws are of force, unless sustained by public opinion—"Leges sine moribus vanæ sunt." Society may be divided into three classes: those who are governed by principles; those whose morality is the offspring of habit; and those who are governed by public opinion. Remove the first class, and there is an end of morality. Habitual morality is the result of education. Persons of this class would be habitually vicious, if brought up in vice. Those who are governed merely by public opinion, would be knaves, cut-throats, or any thing else, if all were like themselves. Public opinion, then, is derived from, and depends upon, fixed and immutable principles, without which, it is as silly to talk of morality, as to talk of imaginary effects without causes. Moral principles, then.

are of the utmost importance. If a man of corrupt political principles is regardless of the good of his country, what outrages on Society will the man, destitute of moral principles, not commit, when possessed of the power? Principles are fixed motives, which act at all times, in all places, and under all circumstances. Moral courage, the noblest attribute of man, is necessarily connected with them. They are not only the foundation of morality, but the only security of moral character, and of course the only security of individual, as well as national prosperity and happiness. To enquire what these principles are, and how they operate, is the buisness of Moral Philosophy. Moral principles are imbibed, and habits contracted at an early period in life. To inculcate the principles, and form the habits, which go to make up the individual's moral character,in after life, is usually the task of a mother. I believe, I may safely add, that the female sex possess an equal, if not greater share of influence in public opinion, particularly so far as morals are concerned. Would you then have moral principles diffused through all classes of society, good habits early formed—formed upon principle, and thus rendered secure, the standard of public opinion elevated, and the morality and happiness of society secured, make Moral Philosophy a part of female education. The arguments which recommend it to the study of the male sex, are much more forcible when applied to the female sex.

ESSAY XIV.

METAPHYSICS.

We know that the old word Metaphysics has to encounter strong prejudices. We propose, however, to advance nothing which we believe cannot be sustained by common sense. We propose to make nothing a part of female education which, we do not believe, will add to the influence, usefulness, and happiness of woman in society. Hence, we object to those theories and speculations which are involved in subtilities, as belonging more particularly to the metaphysician in his closet. We insist only upon what is plain, and necessarily connected with other branches of science. We insist only upon a knowledge of those operations of the mind, of which all are conscious, and by a knowledge of which, we are enabled to control our own minds, and to exercise an influence over the minds of others. How we come by our ideas, how we retain them, and what control we have over them, includes all that I would insist upon as a part of female education. The first leads us to consider sensation and reflection; the second to consider memory and the association of ideas; the third embraces conception, imagination, abstraction, judgment and reasoning. With these are connected other subjects. For example, sensation and reflection lead us to examine the five senses, perception, &c. These, however, we cannot now take time to enumerate.

We would now point out a few of those things in which Metaphysics are connected with other studies, which usually form a part of female education. Logicians, as a preparatory step, treat of sensation, reflection, consciousness, perception, of simple and complex ideas, of the primary and secondary qualities of bodies, of abstraction, and the classification of things, of the different sorts of evidence, &c. Writers on Belles Lettres, Rhetoric and Criticism, treat of taste, beauty, grandeur and sublimity, wit, ridicule, the sources of evidence, and many other subjects treated of by metaphysicians. It is true that each of these has a different end in view in examing those subjects, yet it is manifest that these branches have many things common to one another, and mutually assist one another. We may add that a thorough knowledge of any one of them is scarcely to be expected without some knowledge of all. Metaphysicians also treat of the principles which govern human beings—of reason—of the moral and social feelings—of the appetites—the influence of prejudice, and many other subjects connected with moral philosophy and some of the other sciences.

What interest young ladies will take in this science, and how far they will be successful, I do not pretend to say at present Upon these, however, depend the propriety of its introduction.*

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*Reid, speaking of the Philosophy of Des Cartes, when it triumphed over that of Aristotle says:—"The ladies became fond of a Philosophy which was easily learned, and required no words too harsh for their delicate organs. Queens and Princesses, the most distinguished personages of the age, courted the conversation of Des Cartes, and became adepts in his Philosophy. Witness Christina, Queen of Sweden, and Elizabeth, daughter of Frederick, King of Bohemia, and sister to Sophia, the mother of our Royal family. The last, though very young, when Des Cartes wrote his principia, he declares to be the only person he knew, who perfectly understood, not only his philosophical writings, but the most abstruse of his mathematical works."

ESSAY XV.

STUDY OF THE DEAD LANGUAGES.

Whether the study of the dead languages should form a part of female education, is a subject upon which there is great difference of opinion. It is even urged by some, that they are of no use to either sex. We have considered the arguments on both sides, but shall say nothing of them at present. We insist that they will amply repay all who may have time and opportunity for studying them. We shall briefly give our reasons for believing so. Considered merely as a study, we know of none that is a better discipline for the mind. It improves the train of thought, teaching the mind to analyze, by leading it to examine words separately, and then to trace their connection and dependencies. It teaches the mind synthesis, by compelling it to select the most prominent idea, and sum up all into one. Without the power of analysis and synthesis, no mind was ever great. The study of language is well calculated to improve the judgment; because it compels the mind to compare accurately the different ideas which the words, and their arrangement in a sentence, suggest, in order to select that which is best, and most consistent with the other parts of the discourse. Hence, we object to the use of translations in the study of the dead languages, as, in a great measure, defeating the end in view. This study is eminently calculated to improve the imagination, as it consists in combining and arranging ideas in various ways. That it improves the memory has never been denied. It is a study which habituates the mind to discriminate closely between different ideas. It supplies the mind with a great store of words, and keeps it continually exerted in the application of these words to ideas, and consequently gives us a ready command of good language. If there be any way by which words may be accurately acquired along with ideas, and closely associated with them, it is by the study of the languages. Hence, if they be properly studied, much knowledge must necessarily be acquired. This study conduces to a correct understanding of English grammar, improves our style, corrects our taste, and affords a deeper insight into our own language.

A knowledge of grammar consists not in repeating the rules laid down by grammarians like a parrot; but in knowing the relations, connections and dependencies of words and sentences. Merely knowing the inflections of nouns, adjectives and verbs, no more constitutes a knowledge of grammar, than knowing the signs used in Algebra, constitutes a knowledge of that science. The inflections are only signs of the relations which subsist between words and parts of sentences. Are not these relations the same in all languages, whether the signs be different or not? What, then, must be his ideas of grammar, who tells us that Latin grammar does not teach us English grammar? Who is most likely to be the best grammarian, he who is compelled to investigate minutely all the relations between the different words in a sentence, in order to ascertain its meaning; or he who never learns any of the languages, and of course never feels the necessity of examining these relations? Who are our best grammarians? Are they those who never studied the languages? "*Credat Appella.*" Who knows so well how to construct a sentence, as the person accustomed to examine closely the relation between words and ideas? Or who understands languageso well? Is it the person who has picked up words and used them without examining what idea, or whether any was attached to them? It accustoms us to trace out the origin and changes of words, and the manner in which they are derived and compounded. This study furnishes the orator and poet with a ready flow of the most appropriate and elegant language. In a course of liberal education, we prefer the study of the ancient languages to that of the modern; because, differing more from our own, they compel us to examine more closely the relations between words and sentences. Their etymology is more systematic. The German language perhaps comes nearest them in this respect.* The modern are inferior to the ancient in music, force and sublimity. The latter introduce us into a new field of ideas and imagery, only suggested in the exercise of translating, and not to be gotten by translations.

Heathen mythology affords extensive materials for combining ideas and for forming all the beautiful figures of thought. At the thought of Greece imagination springs into ecstacy. Apollo tunes his harp—Diana mingles with her attendant nymphs in the chase—Cupid wields his bow—Neptune with his trident rules the sea—Æolus calms the winds—Dryads bask amongst the shady oaks, and every grove is the scene of enchantment.

These languages are a key and fixed standard to our own; we have been long accustomed to them; our own is interwoven with them, and our classics are full of allusions to the ancient classics. When we throw away ancient literature, we ought to discard our own, and commence afresh.

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* The word, *haupt*, the head, forms a part of between twenty and thirty words in German.

CONCLUSION.

Having selected a course of studies, and briefly given our views of some of its parts, we shall trouble our reader with only a few more remarks. Those branches which have long formed a part of female education, like all other things of long standing, have a reason for it, and must ever stand foremost in the list of studies. They must receive the first and greatest attention. While we would enlarge the superstructure, we would secure the foundation; while we would add to the utility, we would not diminish, but rather increase the ornament of the edifice. Taking a survey of the different branches of science, the reader will perceive, that they all have their respective recommendations. The importance also of the time requisite to obtain a knowledge of each, is not to be overlooked in the selection of studies. Generally speaking, those, which are most important, require the most time. Few studies require more time and perseverance than the study of the Languages. Music and Drawing also call for a great deal of time and attention. Yet they are so suitable to that refinement of feeling, peculiar to the female sex, as to render them indispensable in a course of liberal education.

By extending the course of female education, it will be adapted to the tastes and inclinations of a greater number; and an opportunity will be afforded to those, who have the time, of making a full display of their mental powers. Whilst in the present day, the advantages of education are extended to a greater number, it appears that there are few, if any, particularly of the female sex, who have attainments comparable to those possessed by many in former times. For a proof of this, we might refer the reader to Lady Jane Grey,* Mrs. Carter, Lady Montague, Madame de Stael, Christina, Queen of Sweden, Elizabeth, daughter of Frederick, and many others. Why is it that no such attainments are made by females in the present day? To what are we to attribute this retrograde? Are the female sex now, naturally inferior to what they were in former times? Or is it owing to the present system of education? We believe it is owing to this system of show, to which all that is calculated to strengthen the mind, to elevate and dignify the character of woman, is sacrificed. Will those, who would exclude woman from the study of language, and from the pages of the Philosopher, the Poet, and the Critic, show us any, educated according to the present system, who, in any respect, can compare with those whom we have mentioned? But it is public opinion which upholds this modern system of smattering, which bids woman be humble, unaspiring, and content with the narrow sphere to which it has consigned her. In that, it bids her live unknown, and die to be forgotten.

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*Lady Jane Grey is said to have been mistress of the Greek and Latin languages, in both of which she wrote elegant letters, which were published after her death. Mrs. Carter is said to have been an admirable Greek and Latin scholar. She translated "Epictetus," wrote with fluency and elegance in French and Italian, and was conversant in the German, Spanish and Portuguese languages.

There were two distinguished ladies called Montague. Lady Mary Whortly corresponded with Pope and Addison. Lady Elizabeth was the author of "Essay on the Writings and Genius of Shakespeare, compared with the Greek and French Dramatic Poets, with some remarks upon the misrepresentations of Mons de Voltaire."

Christina is said to have understood several languages, and to have been perfect mistress of Belles Lettres. Madame de Stael was author of several Works. For Elizabeth, daughter of Frederick, *vide note p.* 30.

We would rejoice to see amongst the female sex of the present day, such distinguished personages as have been in past times. But our hopes of this are faint. Could we, however, succeed in laying the foundation of an Institution, in our native little State, which may, at least, afford to such as have the desire, the means of becoming eminent, we would feel satisfied, and hail it as the dawn of a more glorious period in the annals of education. We would expect as a consequence, a more enlightened, moral and religious people, prepared to enjoy more happiness on earth, and possessed of brighter hopes of glory in a world above. While we feel that our success depends, in some measure, upon the patronage of an enlightened public, we believe that more depends on the energies and resources of the teachers. “*Omnia vincit*” *labor.*

The supposition that talents are not necessary to a teacher, is a mistake pernicious to the cause of education. Will the stupid teacher, who has dozed over the same little routine for years, inspire the pupil with aught that is noble? Will he arouse curiosity or awaken the spirit of emulation? Few reflect how much the future eminence of the pupil depends upon early aspirations for distinction, instilled by the ardor of instructors.

We would finally observe, that nothing is to be gained by rendering study a laborious task to the young. Five or six hours of mental exercise is sufficient in the day. Besides, there should always be, at least, two vacations of some length in every well regulated school. Without these, education becomes a dull and unprofitable round, which damps the ardor both of teacher and pupil, weakens the body and blunts the faculties of the mind.

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ERRATA.

Preface, line 29, for "respect, ability," read, respectability.

Preface, page 2, line 11, for "gives" read, give.

Preface, note, for "entirely free from these evils" read entirely exempt.

Page 4, line 41, for "cannot be much improved," read, cannot be too much improved.

Page 4, line 24, for "labouriously" read, laboriously.

Page 6, line 22, for "imbicile" read, imbecile.

Page 7, line 44, for "puriry" read, purity.

Page 18, line 15, for "sheroidal" read, spheroidal.

Page 22, line 21, for "genius" read, genus.

Page 27, line 4, for "shewith" read, sheweth.

Page 27, line 20, for "labours" read, labors.

COLUMBIA
FEMALE ACADEMY.

THE EXERCISES of this Seminary, will be resumed on the *first Monday in January,* under the Superintendence of R. S. GLADNEY, a Graduate of the South-Carolina College.

TERMS PER QUARTER:

Spelling, Reading, and Writing, : : : : :	$6 00
The above, with Arithmetic, Grammar, Composition, Ancient and Modern History, Ancient and Modern Geography, with the use of Maps and Globes, : : : : : :	8 00
The above, with Astronomy, Botany, Algebra and Geometry, Latin, and Greek, : : : : : : :	10 00
The above, with Chemistry, Natural and Moral Philosophy, and Metaphysics, : : : : : : : : :	12 00
French, Drawing, Music, &c. charged extra.	
Boarding and Tuition, per quarter, : : : : :	43 75

☞ Young Ladies Boarding at the Institution, will be under the immediate care of Mr. and Mrs. GLADNEY.

There will be two vacations, one in June and one in December.

The Scholastic Quarter will consist of eleven weeks, and be payable in advance.

N. B. None but the most competent Assistants will be employed, and every exertion will be made to render the Institution such as is proposed.